Mohamed Trebak

List of Publications by Year
in descending order

127 papers	9,387 citations	34076 52 h-index	43868 91 g-index
140 all docs	140 docs citations	140 times ranked	10696 citing authors

#	Article	IF	Citations
1	Guidelines for the use of flow cytometry and cell sorting in immunological studies (second edition). European Journal of Immunology, 2019, 49, 1457-1973.	1.6	766
2	Stim1 and Orai1 Mediate CRAC Currents and Store-Operated Calcium Entry Important for Endothelial Cell Proliferation. Circulation Research, 2008, 103, 1289-1299.	2.0	341
3	Calcium signalling in T cells. Nature Reviews Immunology, 2019, 19, 154-169.	10.6	306
4	The mammalian TRPC cation channels. Biochimica Et Biophysica Acta - Molecular Cell Research, 2004, 1742, 21-36.	1.9	285
5	A Novel Native Store-operated Calcium Channel Encoded by Orai3. Journal of Biological Chemistry, 2010, 285, 19173-19183.	1.6	278
6	Evidence for STIM1â€•and Orailâ€dependent storeoperated calcium influx through I _{CRAC} in vascular smooth muscle cells: role in proliferation and migration. FASEB Journal, 2009, 23, 2425-2437.	0.2	256
7	Comparison of Human TRPC3 Channels in Receptor-activated and Store-operated Modes. Journal of Biological Chemistry, 2002, 277, 21617-21623.	1.6	221
8	The non-excitable smooth muscle: Calcium signaling and phenotypic switching during vascular disease. Pflugers Archiv European Journal of Physiology, 2008, 456, 769-785.	1.3	208
9	The TRPC3/6/7 subfamily of cation channels. Cell Calcium, 2003, 33, 451-461.	1.1	201
10	Ryanodine Receptor Blockade Reduces Amyloid-Î² Load and Memory Impairments in Tg2576 Mouse Model of Alzheimer Disease. Journal of Neuroscience, 2012, 32, 11820-11834.	1.7	197
11	Emerging perspectives in store-operated Ca2+ entry: Roles of Orai, Stim and TRP. Biochimica Et Biophysica Acta - Molecular Cell Research, 2006, 1763, 1147-1160.	1.9	194
12	Endoplasmic Reticulum Stress Is Involved in Cardiac Damage and Vascular Endothelial Dysfunction in Hypertensive Mice. Arteriosclerosis, Thrombosis, and Vascular Biology, 2012, 32, 1652-1661.	1.1	182
13	Crosstalk between calcium and reactive oxygen species signaling in cancer. Cell Calcium, 2017, 63, 70-96.	1.1	163
14	STIM1 and Orai1 mediate CRAC channel activity and are essential for human glioblastoma invasion. Pflugers Archiv European Journal of Physiology, 2013, 465, 1249-1260.	1.3	157
15	Orai3 is an estrogen receptor Î±â€regulated Ca ²⁺ channel that promotes tumorigenesis. FASEB Journal, 2013, 27, 63-75.	0.2	157
16	Interleukin-10 Released by CD4 ⁺ CD25 ⁺ Natural Regulatory T Cells Improves Microvascular Endothelial Function Through Inhibition of NADPH Oxidase Activity in Hypertensive Mice. Arteriosclerosis, Thrombosis, and Vascular Biology, 2011, 31, 2534-2542.	1.1	151
17	Signaling Mechanism for Receptor-activated Canonical Transient Receptor Potential 3 (TRPC3) Channels. Journal of Biological Chemistry, 2003, 278, 16244-16252.	1.6	146
18	Expression Level of the Canonical Transient Receptor Potential 3 (TRPC3) Channel Determines Its Mechanism of Activation. Journal of Biological Chemistry, 2003, 278, 21649-21654.	1.6	140

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19	Essential role for STIM1/Orai1-mediated calcium influx in PDGF-induced smooth muscle migration. American Journal of Physiology - Cell Physiology, 2010, 298, C993-C1005.	2.1	137
20	Mitochondrial Ca2+ signaling. , 2018, 192, 112-123.		125
21	Orai1-Mediated I _{CRAC} Is Essential for Neointima Formation After Vascular Injury. Circulation Research, 2011, 109, 534-542.	2.0	124
22	Negative Regulation of TRPC3 Channels by Protein Kinase C-Mediated Phosphorylation of Serine 712. Molecular Pharmacology, 2005, 67, 558-563.	1.0	121
23	Mechanism of endoplasmic reticulum stress-induced vascular endothelial dysfunction. Biochimica Et Biophysica Acta - Molecular Cell Research, 2014, 1843, 1063-1075.	1.9	119
24	Complex regulation of the TRPC3, 6 and 7 channel subfamily by diacylglycerol and phosphatidylinositol-4,5-bisphosphate. Cell Calcium, 2008, 43, 506-514.	1.1	114
25	Interplay Between Calcium and Reactive Oxygen/Nitrogen Species: An Essential Paradigm for Vascular Smooth Muscle Signaling. Antioxidants and Redox Signaling, 2010, 12, 657-674.	2.5	114
26	New developments in the signaling mechanisms of the store-operated calcium entry pathway. Pflugers Archiv European Journal of Physiology, 2008, 457, 405-415.	1.3	106
27	Store-Independent Orai1/3 Channels Activated by Intracrine LeukotrieneC ₄. Circulation Research, 2013, 112, 1013-1025.	2.0	106
28	Complex functions of phosphatidylinositol 4,5-bisphosphate in regulation of TRPC5 cation channels. Pflugers Archiv European Journal of Physiology, 2009, 457, 757-769.	1.3	105
29	STIM and Orai proteins as novel targets for cancer therapy. A Review in the Theme: Cell and Molecular Processes in Cancer Metastasis. American Journal of Physiology - Cell Physiology, 2015, 309, C457-C469.	2.1	102
30	miR-424/322 regulates vascular smooth muscle cell phenotype and neointimal formation in the rat. Cardiovascular Research, 2013, 98, 458-468.	1.8	101
31	The Orai1 Store-operated Calcium Channel Functions as a Hexamer. Journal of Biological Chemistry, 2016, 291, 25764-25775.	1.6	97
32	The Induction of Yes-Associated Protein Expression After Arterial Injury Is Crucial for Smooth Muscle Phenotypic Modulation and Neointima Formation. Arteriosclerosis, Thrombosis, and Vascular Biology, 2012, 32, 2662-2669.	1.1	94
33	Multiple types of calcium channels arising from alternative translation initiation of the Orai1 message. Science Signaling, 2015, 8, ra74.	1.6	94
34	Impedance analysis of GPCR-mediated changes in endothelial barrier function: overview and fundamental considerations for stable and reproducible measurements. Pflugers Archiv European Journal of Physiology, 2015, 467, 2193-2218.	1.3	93
35	A Novel Role for Epidermal Growth Factor Receptor Tyrosine Kinase and Its Downstream Endoplasmic Reticulum Stress in Cardiac Damage and Microvascular Dysfunction in Type 1 Diabetes Mellitus. Hypertension, 2012, 60, 71-80.	1.3	90
36	The native ORAI channel trio underlies the diversity of Ca2+ signaling events. Nature Communications, 2020, 11, 2444.	5.8	90

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37	Mitochondria control storeâ€operated Ca ²⁺ entry through Na ⁺ and redox signals. EMBO Journal, 2017, 36, 797-815.	3.5	82
38	Mechanisms of Phospholipase C-Regulated Calcium Entry. Current Molecular Medicine, 2004, 4, 291-301.	0.6	78
39	The STIM1-binding site nexus remotely controls Orai1 channel gating. Nature Communications, 2016, 7, 13725.	5.8	77
40	Mitochondrial Calcium Regulation of Redox Signaling in Cancer. Cells, 2020, 9, 432.	1.8	77
41	STIM/Orai signalling complexes in vascular smooth muscle. Journal of Physiology, 2012, 590, 4201-4208.	1.3	76
42	TRPC channels in smooth muscle cells. Frontiers in Bioscience - Landmark, 2010, 15, 1023.	3.0	75
43	STIM1 Controls Endothelial Barrier Function Independently of Orai1 and Ca ²⁺ Entry. Science Signaling, 2013, 6, ra18.	1.6	75
44	Enhanced NF-Î²B Activity Impairs Vascular Function Through PARP-1â€“, SP-1â€“, and COX-2â€“Dependent Mechanisms in Type 2 Diabetes. Diabetes, 2013, 62, 2078-2087.	0.3	74
45	A calcium/cAMP signaling loop at the ORAI1 mouth drives channel inactivation to shape NFAT induction. Nature Communications, 2019, 10, 1971.	5.8	73
46	Distinct pharmacological profiles of ORAI1, ORAI2, and ORAI3 channels. Cell Calcium, 2020, 91, 102281.	1.1	71
47	Complex role of STIM1 in the activation of store-independent Orai1/3 channels. Journal of General Physiology, 2014, 143, 345-359.	0.9	70
48	Crosslink between calcium and sodium signalling. Experimental Physiology, 2018, 103, 157-169.	0.9	70
49	Airway smooth muscle STIM1 and Orai1 are upregulated in asthmatic mice and mediate PDGF-activated SOCE, CRAC currents, proliferation, and migration. Pflugers Archiv European Journal of Physiology, 2012, 464, 481-492.	1.3	69
50	ORAI Calcium Channels. Physiology, 2017, 32, 332-342.	1.6	68
51	Urotensin-II promotes vascular smooth muscle cell proliferation through store-operated calcium entry and EGFR transactivation. Cardiovascular Research, 2013, 100, 297-306.	1.8	67
52	Redox Control of the Senescence Regulator Interleukin-1Î± and the Secretory Phenotype. Journal of Biological Chemistry, 2013, 288, 32149-32159.	1.6	65
53	Cross-linking of Orai1 channels by STIM proteins. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E3398-E3407.	3.3	60
54	Omnitemporal choreographies of all five STIM/Orai and IP3Rs underlie the complexity of mammalian Ca2+ signaling. Cell Reports, 2021, 34, 108760.	2.9	57

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55	The Role of Canonical Transient Receptor Potential 7 in B-cell Receptor-activated Channels. Journal of Biological Chemistry, 2005, 280, 35346-35351.	1.6	55
56	Induction of store-operated calcium entry (SOCE) suppresses glioblastoma growth by inhibiting the Hippo pathway transcriptional coactivators YAP/TAZ. Oncogene, 2019, 38, 120-139.	2.6	55
57	Mechanisms of STIM1 Activation of Store-Independent Leukotriene C₄-Regulated Ca²⁺ Channels. Molecular and Cellular Biology, 2013, 33, 3715-3723.	1.1	53
58	Physiological Functions of CRAC Channels. Annual Review of Physiology, 2022, 84, 355-379.	5.6	53
59	Enhanced Ca²⁺entry due to Orai1 plasma membrane insertion increases ILâ€8 secretion by cystic fibrosis airways. FASEB Journal, 2011, 25, 4274-4291.	0.2	51
60	Essential Role of Smooth Muscle STIM1 in Hypertension and Cardiovascular Dysfunction. Arteriosclerosis, Thrombosis, and Vascular Biology, 2016, 36, 1900-1909.	1.1	48
61	Calcium/Calmodulin-dependent Protein Kinase II Delta 6 (CaMKIIΔ6) and RhoA Involvement in Thrombin-induced Endothelial Barrier Dysfunction. Journal of Biological Chemistry, 2010, 285, 21303-21312.	1.6	47
62	Emerging Roles for Native Orai Ca2+ Channels in Cardiovascular Disease. Current Topics in Membranes, 2013, 71, 209-235.	0.5	46
63	CD4 +CD25 +Foxp3 regulatory T cells and vascular dysfunction in hypertension. Journal of Hypertension, 2013, 31, 1939-1943.	0.3	46
64	The lysosomal TRPML1 channel regulates triple negative breast cancer development by promoting mTORC1 and purinergic signaling pathways. Cell Calcium, 2019, 79, 80-88.	1.1	46
65	Efficient laboratory-scale production of monoclonal antibodies using membrane-based high-density cell culture technology. Journal of Immunological Methods, 1999, 230, 59-70.	0.6	45
66	Orai channel-mediated Ca²⁺signals in vascular and airway smooth muscle. American Journal of Physiology - Cell Physiology, 2016, 310, C402-C413.	2.1	45
67	Poly(ADP-Ribose) Polymerase 1 Inhibition Improves Coronary Arteriole Function in Type 2 Diabetes Mellitus. Hypertension, 2012, 59, 1060-1068.	1.3	44
68	What Role for Storeâ€Operated Ca²⁺ Entry in Muscle?. Microcirculation, 2013, 20, 330-336.	1.0	42
69	Novel Protein Kinase C-Mediated Control of Orai1 Function in Invasive Melanoma. Molecular and Cellular Biology, 2015, 35, 2790-2798.	1.1	42
70	Calcium Signaling Is Dispensable for Receptor Regulation of Endothelial Barrier Function. Journal of Biological Chemistry, 2016, 291, 22894-22912.	1.6	40
71	Oligomeric State of the Colon Carcinoma-associated Glycoprotein GA733-2 (Ep-CAM/EGP40) and Its Role in GA733-mediated Homotypic Cell-Cell Adhesion. Journal of Biological Chemistry, 2001, 276, 2299-2309.	1.6	39
72	Emerging roles of Orai3 in pathophysiology. Channels, 2013, 7, 392-401.	1.5	39

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73	Dichotomous role of the human mitochondrial Na+/Ca2+/Li+ exchanger NCLX in colorectal cancer growth and metastasis. ELife, 2020, 9, .	2.8	39
74	Protection of TRPC7 cation channels from calcium inhibition by closely associated SERCA pumps. FASEB Journal, 2006, 20, 503-505.	0.2	38
75	L-type Ca ²⁺ channel blockers promote vascular remodeling through activation of STIM proteins. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 17369-17380.	3.3	37
76	Improved four-color flow cytometry method using fluo-3 and triple immunofluorescence for analysis of intracellular calcium ion ([Ca2+]i) fluxes among mouse lymph node B- and T-lymphocyte subsets. , 1996, 23, 205-217.		36
77	Emergence of Orai3 activity during cardiac hypertrophy. Cardiovascular Research, 2015, 105, 248-259.	1.8	36
78	Cross-talk between N-terminal and C-terminal domains in stromal interaction molecule 2 (STIM2) determines enhanced STIM2 sensitivity. Journal of Biological Chemistry, 2019, 294, 6318-6332.	1.6	36
79	Mitochondrial Calcium Uniporter Drives Metastasis and Confers a Targetable Cystine Dependency in Pancreatic Cancer. Cancer Research, 2022, 82, 2254-2268.	0.4	36
80	Low-Voltage-Activated Ca V 3.1 Calcium Channels Shape T Helper Cell Cytokine Profiles. Immunity, 2016, 44, 782-794.	6.6	35
81	Leukotriene-C4 Synthase, a Critical Enzyme in the Activation of Store-independent Orai1/Orai3 Channels, Is Required for Neointimal Hyperplasia. Journal of Biological Chemistry, 2015, 290, 5015-5027.	1.6	33
82	The Mitochondrial Ca2+ uniporter is a central regulator of interorganellar Ca2+ transfer and NFAT activation. Journal of Biological Chemistry, 2021, 297, 101174.	1.6	30
83	Redox-control of the alarmin, Interleukin-1Î±. Redox Biology, 2013, 1, 218-225.	3.9	28
84	STIM1/Orai1, I _{CRAC} , and Endothelial SOC. Circulation Research, 2009, 104, e56-7.	2.0	27
85	ORAI channels in cellular remodeling of cardiorespiratory disease. Cell Calcium, 2019, 79, 1-10.	1.1	27
86	A New Selective Pharmacological Enhancer of the Orai1 Ca²⁺ Channel Reveals Roles for Orai1 in Smooth and Skeletal Muscle Functions. ACS Pharmacology and Translational Science, 2020, 3, 135-147.	2.5	27
87	Cardiovascular and Hemostatic Disorders: Role of STIM and Orai Proteins in Vascular Disorders. Advances in Experimental Medicine and Biology, 2017, 993, 425-452.	0.8	25
88	The remote allosteric control of Orai channel gating. PLoS Biology, 2019, 17, e3000413.	2.6	25
89	Differential role for stromal interacting molecule 1 in the regulation of vascular function. Pflugers Archiv European Journal of Physiology, 2015, 467, 1195-1202.	1.3	24
90	STIM1-dependent peripheral coupling governs the contractility of vascular smooth muscle cells. ELife, 2022, 11, .	2.8	23

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91	Signalling Mechanisms for TRPC3 Channels. Novartis Foundation Symposium, 2008, , 123-139.	1.2	22
92	STIM1 and Orai1: novel targets for vascular diseases?. Science China Life Sciences, 2011, 54, 780-785.	2.3	22
93	Functional communication between IP ₃ R and STIM2 at subthreshold stimuli is a critical checkpoint for initiation of SOCE. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	22
94	The anatomy of native CRAC channel(s). Current Opinion in Physiology, 2020, 17, 89-95.	0.9	21
95	STIM1 is a core trigger of airway smooth muscle remodeling and hyperresponsiveness in asthma. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	21
96	Increased cAMP levels and protein kinase (PKA) type I activation in CD4+ T cells and B cells contribute to the retrovirusâ€induced immunodeficiency of mice (MAIDS). A useful in vivo model for drug testing in PKA type Iâ€induced immunodeficiency. FASEB Journal, 2001, 15, 1466-1468.	0.2	20
97	The puzzling role of TRPC3 channels in motor coordination. Pflugers Archiv European Journal of Physiology, 2010, 459, 369-375.	1.3	20
98	Chronic Inhibition of Epidermal Growth Factor Receptor Tyrosine Kinase and Extracellular Signal-Regulated Kinases 1 and 2 (ERK1/2) Augments Vascular Response to Limb Ischemia in Type 2 Diabetic Mice. American Journal of Pathology, 2012, 180, 410-418.	1.9	20
99	Oncogenic KRAS suppresses store-operated Ca 2+ entry and I CRAC through ERK pathway-dependent remodelling of STIM expression in colorectal cancer cell lines. Cell Calcium, 2018, 72, 70-80.	1.1	20
100	Vascular Balloon Injury and Intraluminal Administration in Rat Carotid Artery. Journal of Visualized Experiments, 2014, , .	0.2	18
101	Revisiting the physiological effects of methylene blue as a treatment of cyanide intoxication. Clinical Toxicology, 2018, 56, 828-840.	0.8	18
102	Pore properties of Orai1 calcium channel dimers and their activation by the STIM1 ER calcium sensor. Journal of Biological Chemistry, 2018, 293, 12962-12974.	1.6	18
103	Canonical transient receptor potential channels in disease: targets for novel drug therapy?. Drug Discovery Today, 2006, 11, 924-930.	3.2	15
104	Signalling mechanisms for TRPC3 channels. Novartis Foundation Symposium, 2004, 258, 123-33; discussion 133-9, 155-9, 263-6.	1.2	15
105	Francisella tularensis Catalase Restricts Immune Function by Impairing TRPM2 Channel Activity. Journal of Biological Chemistry, 2016, 291, 3871-3881.	1.6	14
106	NCLX pumps up the heat. Cell Calcium, 2020, 92, 102280.	1.1	12
107	Cardiacâ€Specific Deletion of Orai3 Leads to Severe Dilated Cardiomyopathy and Heart Failure in Mice. Journal of the American Heart Association, 2021, 10, e019486.	1.6	12
108	Orai channel C-terminal peptides are key modulators of STIM-Orai coupling and calcium signal generation. Cell Reports, 2021, 35, 109322.	2.9	12

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109	PKC-É› pseudosubstrate and catalytic activity are necessary for membrane delivery during IgG-mediated phagocytosis. Journal of Leukocyte Biology, 2013, 94, 109-122.	1.5	11
110	Golgi-Associated Protein Kinase C-Îµ Is Delivered to Phagocytic Cups: Role of Phosphatidylinositol 4-Phosphate. Journal of Immunology, 2017, 199, 271-277.	0.4	9
111	Lipidic synthetic alkaloids as SK3 channel modulators. Synthesis and biological evaluation of 2-substituted tetrahydropyridine derivatives with potential anti-metastatic activity. European Journal of Medicinal Chemistry, 2020, 186, 111854.	2.6	9
112	Crth2 receptor signaling downâ€regulates lipopolysaccharideâ€induced NFâ€Î±B activation in murine macrophages via changes in intracellular calcium. FASEB Journal, 2019, 33, 12838-12852.	0.2	8
113	A protocol for detecting elemental calcium signals (Ca2+ puffs) in mammalian cells using total internal reflection fluorescence microscopy. STAR Protocols, 2021, 2, 100618.	0.5	8
114	The anatomy of CRAC channel(s). Current Opinion in Physiology, 2020, 17, 89-95.	0.9	8
115	Curcumin and NCLX inhibitors share anti-tumoral mechanisms in microsatellite-instability-driven colorectal cancer. Cellular and Molecular Life Sciences, 2022, 79, 284.	2.4	8
116	Ca2+ channels in cancer. Cell Calcium, 2019, 84, 102083.	1.1	7
117	Store-Independent Orai Channels Regulated by STIM. , 2017, , 197-214.		7
118	PKC-Îµ regulates vesicle delivery and focal exocytosis for efficient IgG-mediated phagocytosis. Journal of Cell Science, 2021, 134, .	1.2	5
119	The airway smooth muscle sodium/calcium exchanger NCLX is critical for airway remodeling and hyperresponsiveness in asthma. Journal of Biological Chemistry, 2022, 298, 102259.	1.6	5
120	A sacrificial process for fabrication of biodegradable polymer membranes with submicron thickness. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2016, 104, 1192-1201.	1.6	4
121	Ca2+ homeostasis and cancer. Cell Calcium, 2019, 84, 102084.	1.1	3
122	Study of the Endogenous CRAC Channel Using shRNA-Mediated Gene Silencing. Methods in Molecular Biology, 2018, 1843, 137-145.	0.4	0
123	Membrane Transport | Arachidonic Acid (Leukotriene C4) Regulated Calcium Channel. , 2021, , 925-931.		0
124	Rheumatoid arthritis: Relief of IKAROS transcriptional repression of Orai3 in T-cells. Cell Calcium, 2021, 97, 102409.	1.1	0
125	Nuclear Factor kappa B (NFkB) Inhibition Improves Vascular Function in Type 2 Diabetic Mice. FASEB Journal, 2012, 26, .	0.2	0
126	Abstract 518: Inhibition of Endoplasmic Reticulum Stress Reduces Aneurysm Induction in Different Aneuryms Models. Arteriosclerosis, Thrombosis, and Vascular Biology, 2013, 33, .	1.1	0

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127	Abstract 3781: Expression of ovarian cancer specific Drp1 splice variants regulate mitochondrial heterogeneity and cell plasticity during tumor progression. Cancer Research, 2022, 82, 3781-3781.	0.4	0